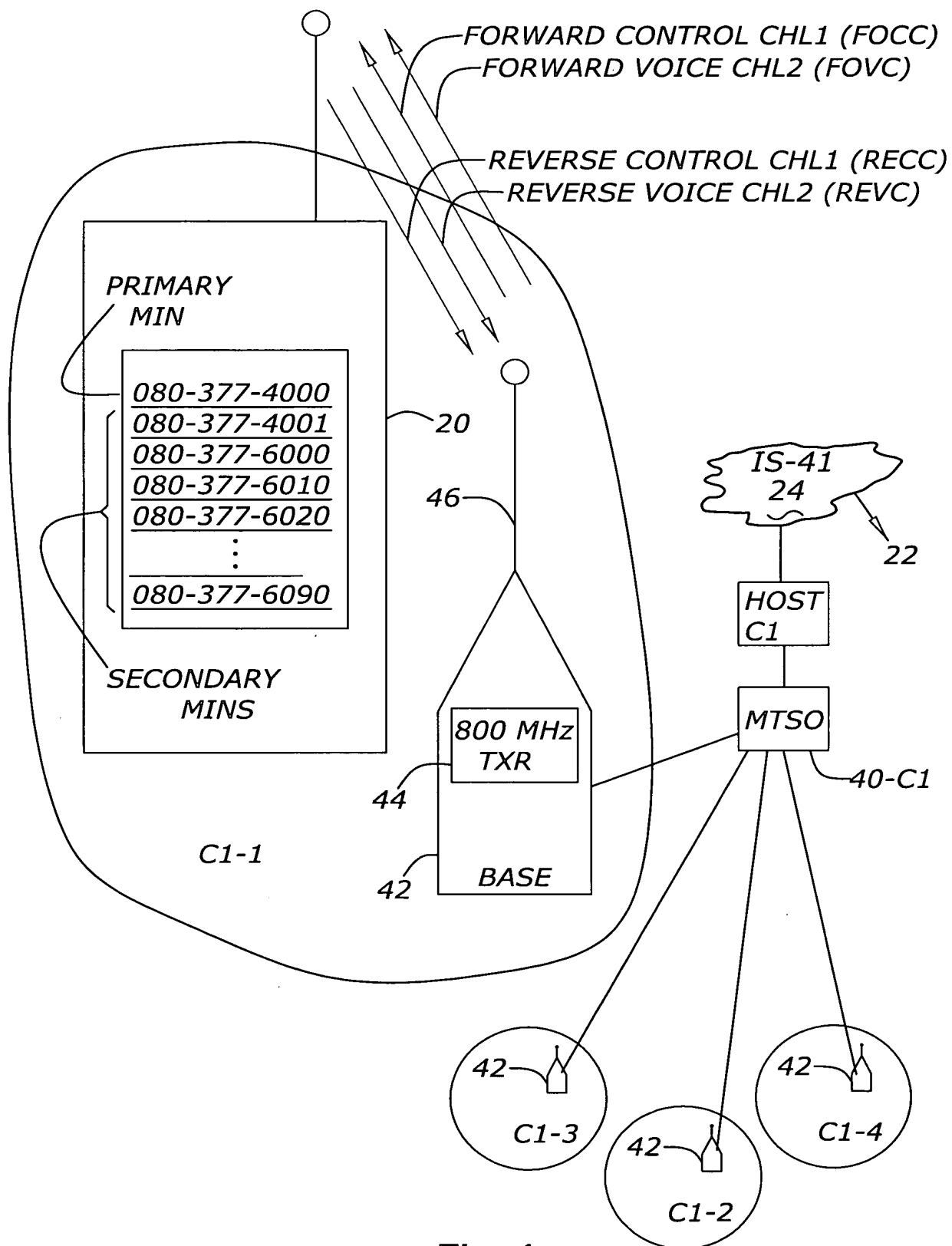
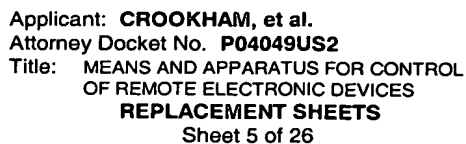
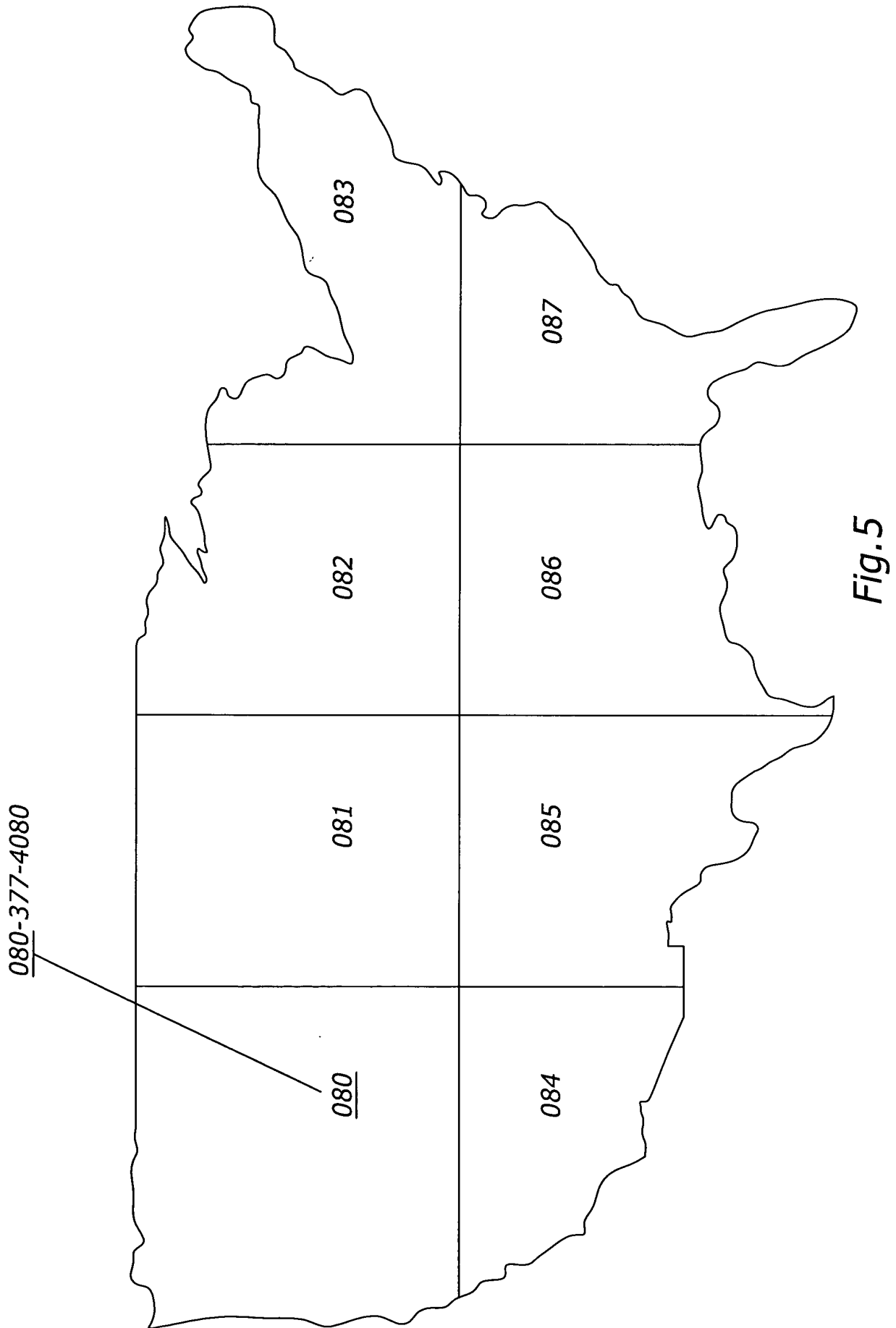


Fig. 3





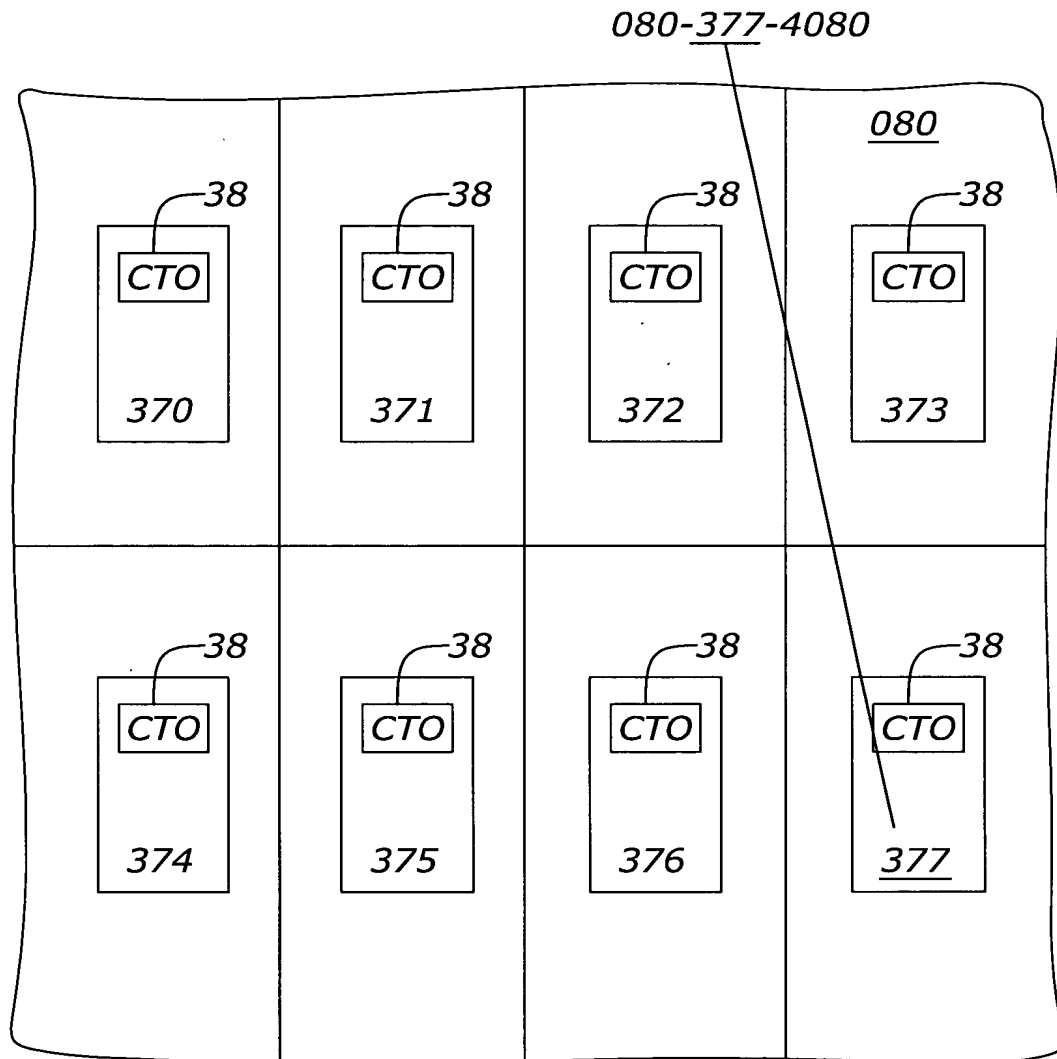


Fig.6

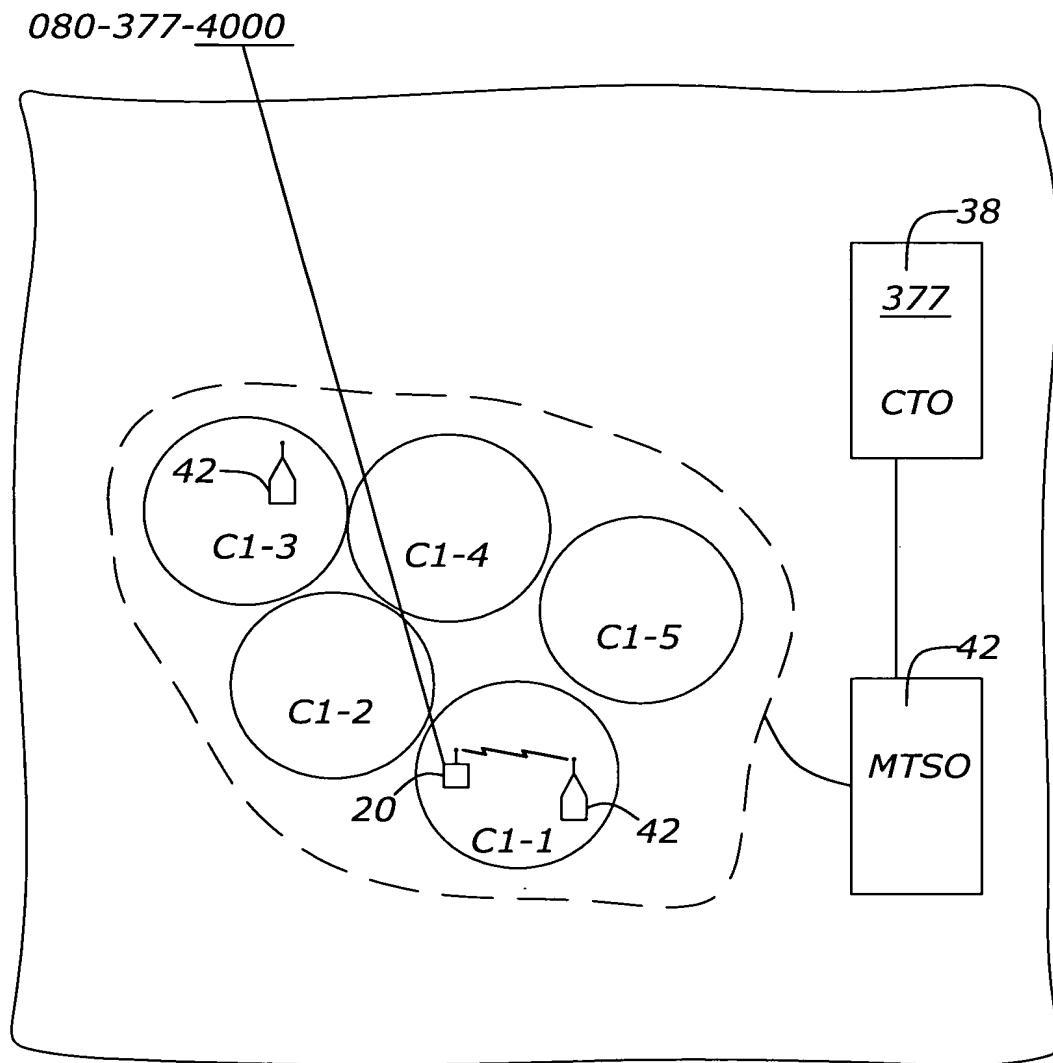
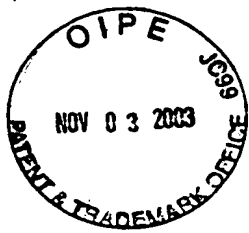
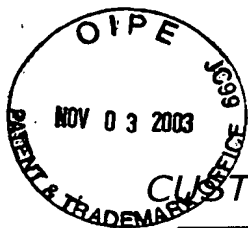
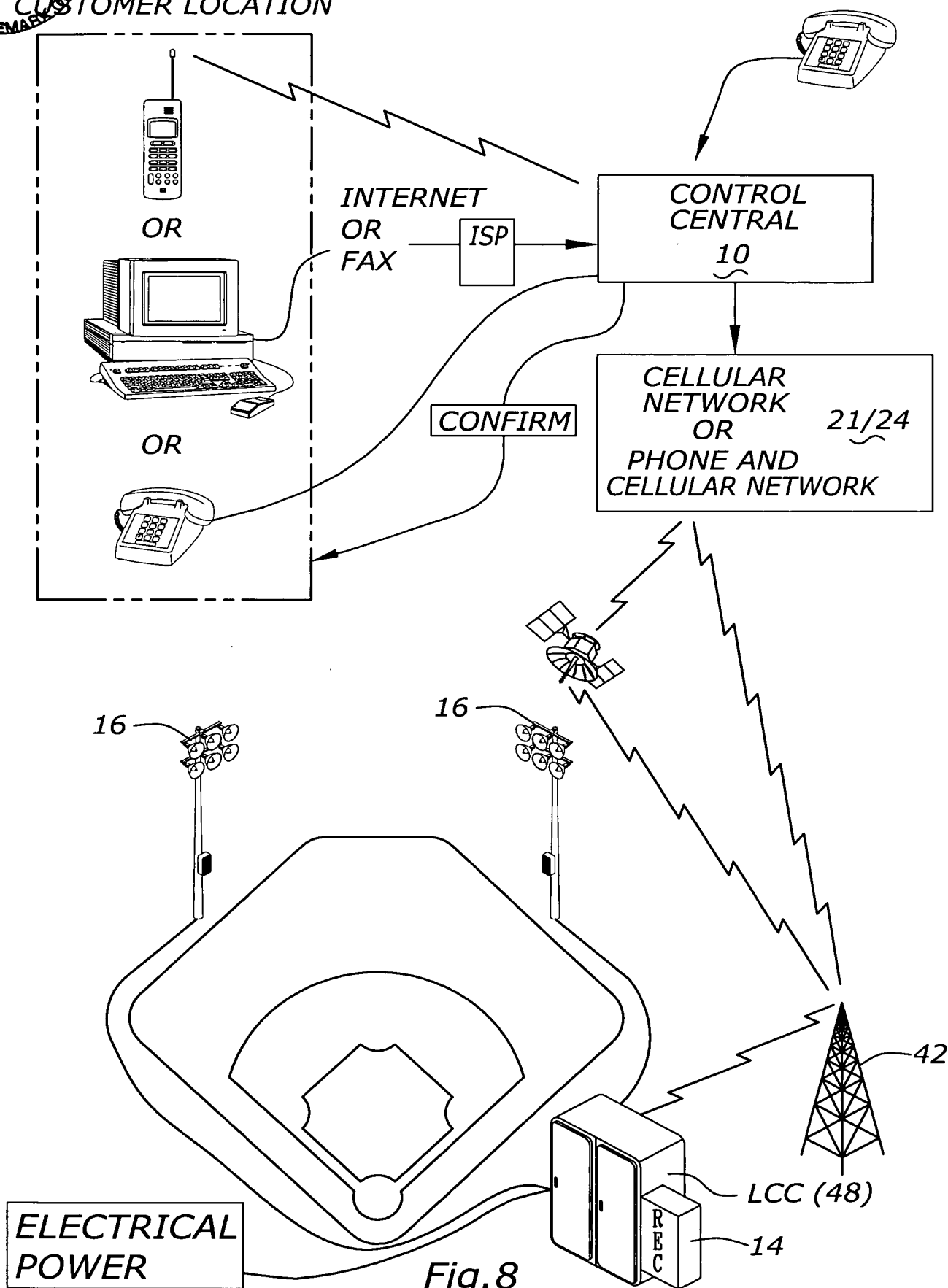


Fig. 7



CUSTOMER LOCATION





CONTROL-LINK FLOW

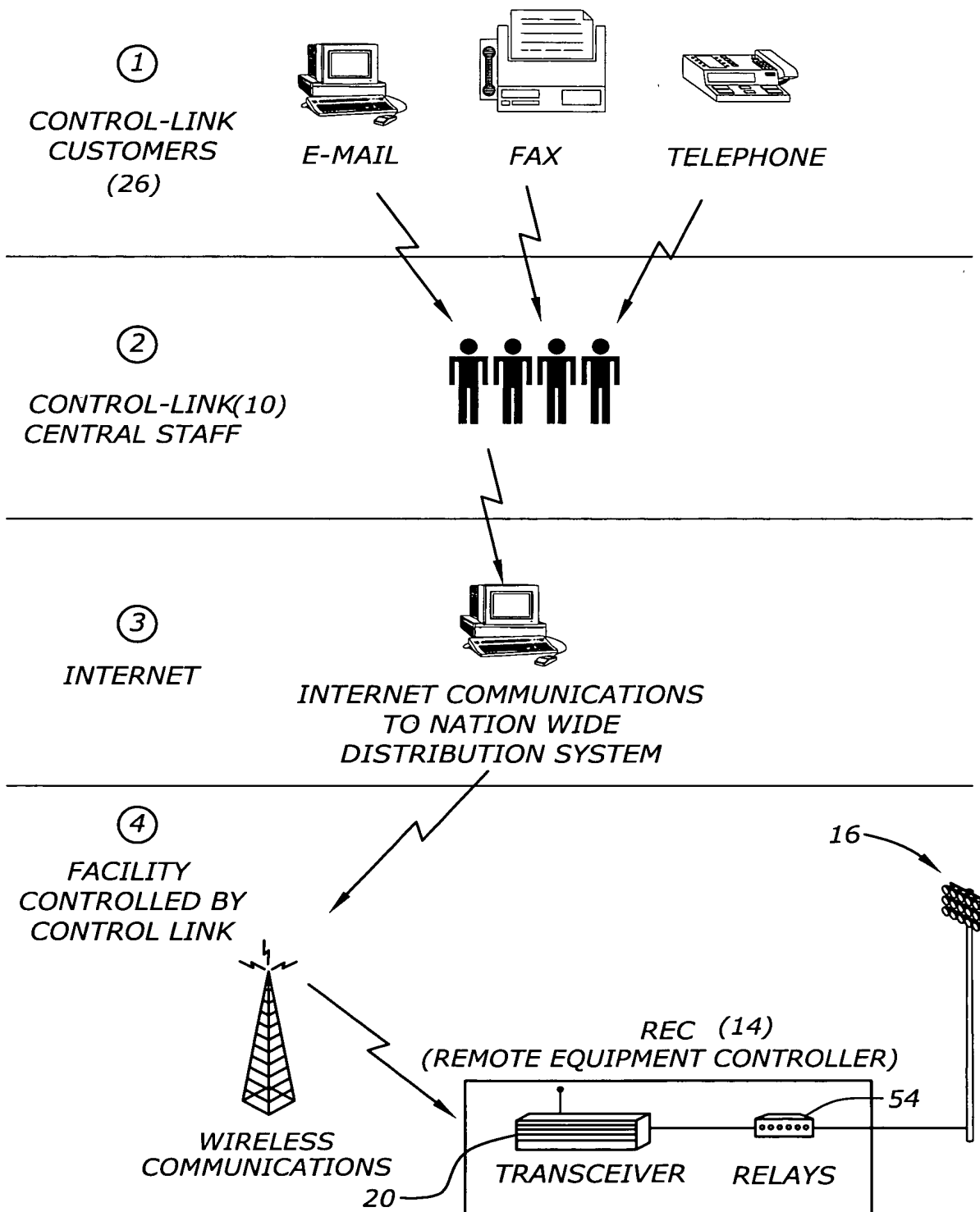


Fig.8B



CONTROL-LINK FLOW PHASE 1

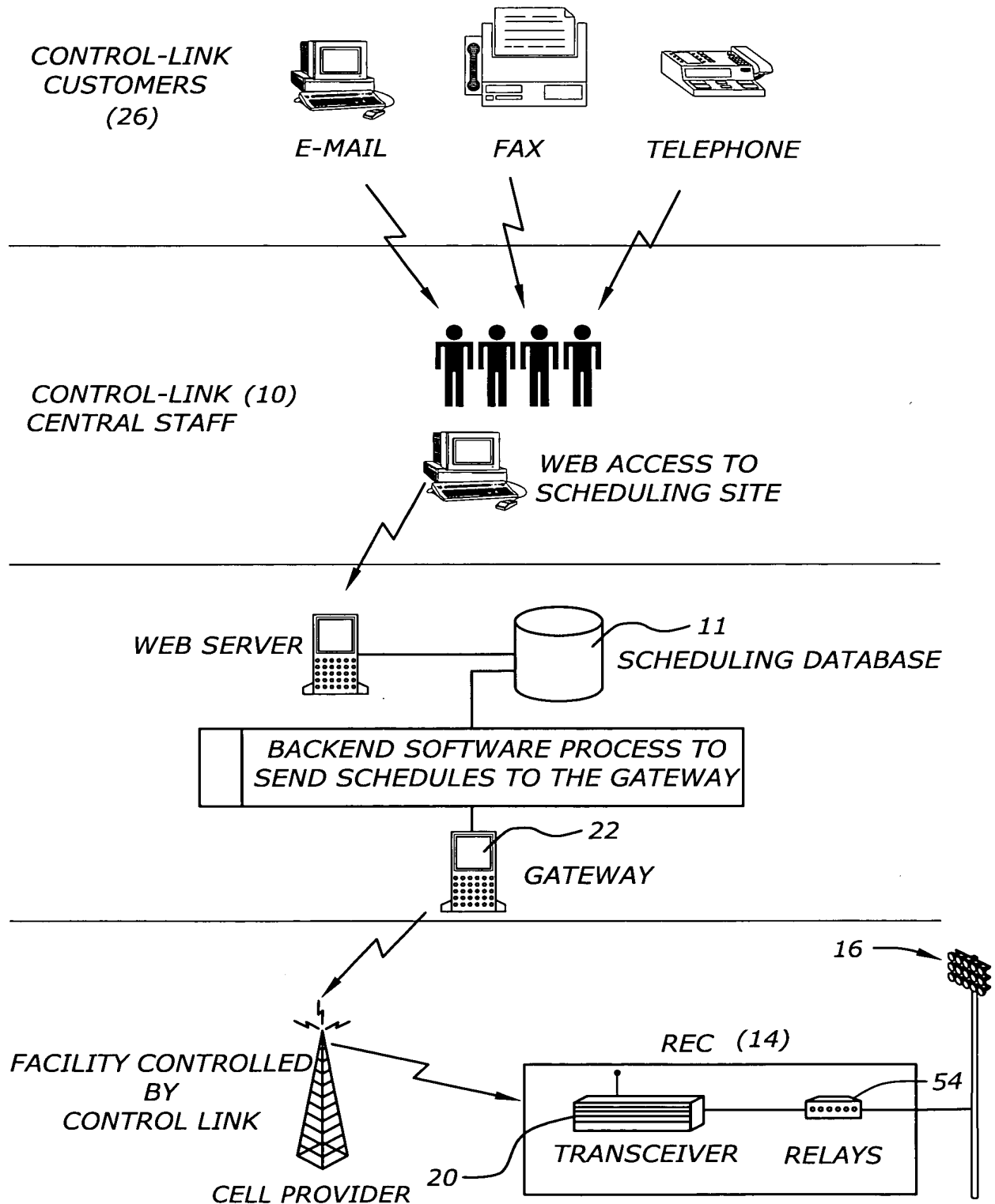


Fig.8C

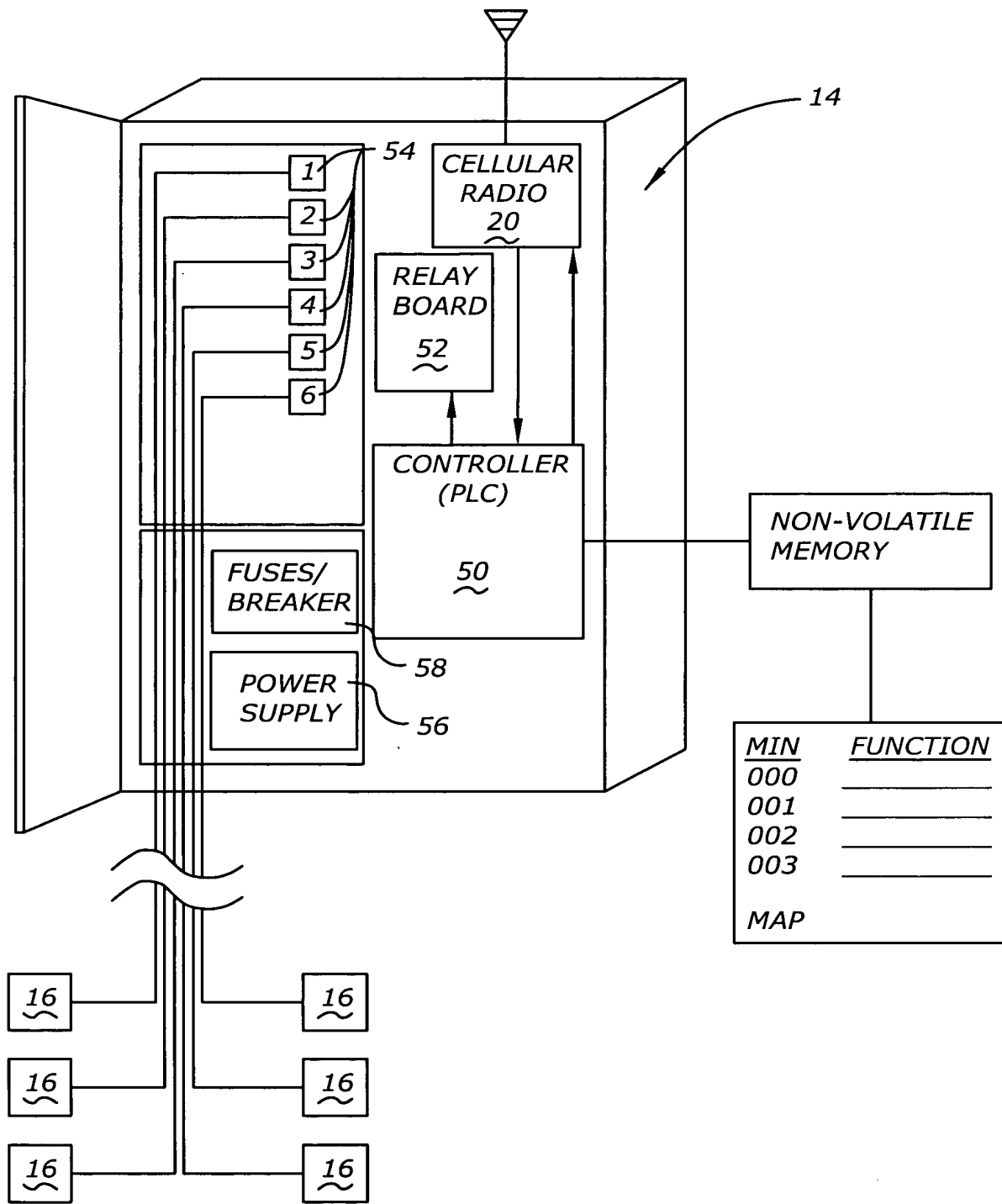


Fig. 9



REMOTE EQUIPMENT CONTROLLER (REC)

- COMPLETELY ASSEMBLED AND TESTED
- ONLY 3 ELECTRONIC ASSEMBLES
- BUILT-IN DIAGNOSTICS AND TEST BUTTONS

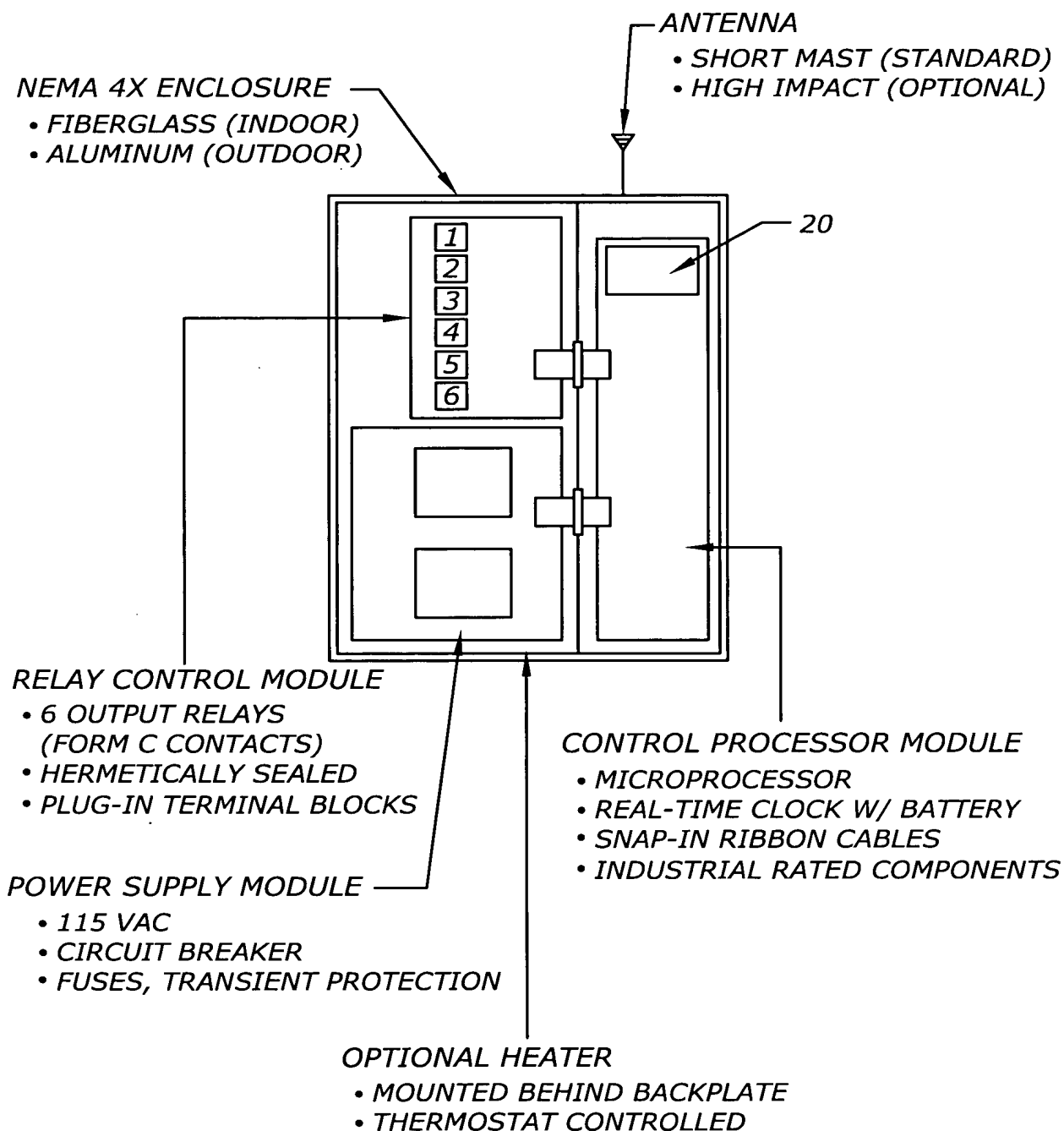


Fig.9B



SCHEDULE

STATE A, CITY 1

LOCATION: TWIN PEAKS PARK

<u><i>LIGHTING ZONE</i></u>	<u><i>ON TIME</i></u>	<u><i>OFF TIME</i></u>
<i>SOFTBALL INFIELD</i>	<i>18:00</i>	<i>22:30</i>
<i>SOFTBALL OUTFIELD</i>	<i>18:15</i>	<i>22:15</i>
<i>SOCCER FIELD</i>	<i>17:00</i>	<i>21:00</i>
<i>SECURITY LIGHTS</i>	<i>19:00</i>	<i>6:00</i>

Fig.10



REC WIRING DATA

LOCATION (FIELD, BALLFIELD): _____

REMOTE EQUIPMENT CONTROLLER: _____

<i>RELAY</i>	<i>CONTROL ZONE</i>	<i>POLES</i>	<i>CONTRACTORS</i>	<i>DEFAULT STATE</i>
<i>1</i>				
<i>2</i>				
<i>3</i>				
<i>4</i>				
<i>5</i>				
<i>6</i>				

Fig.11

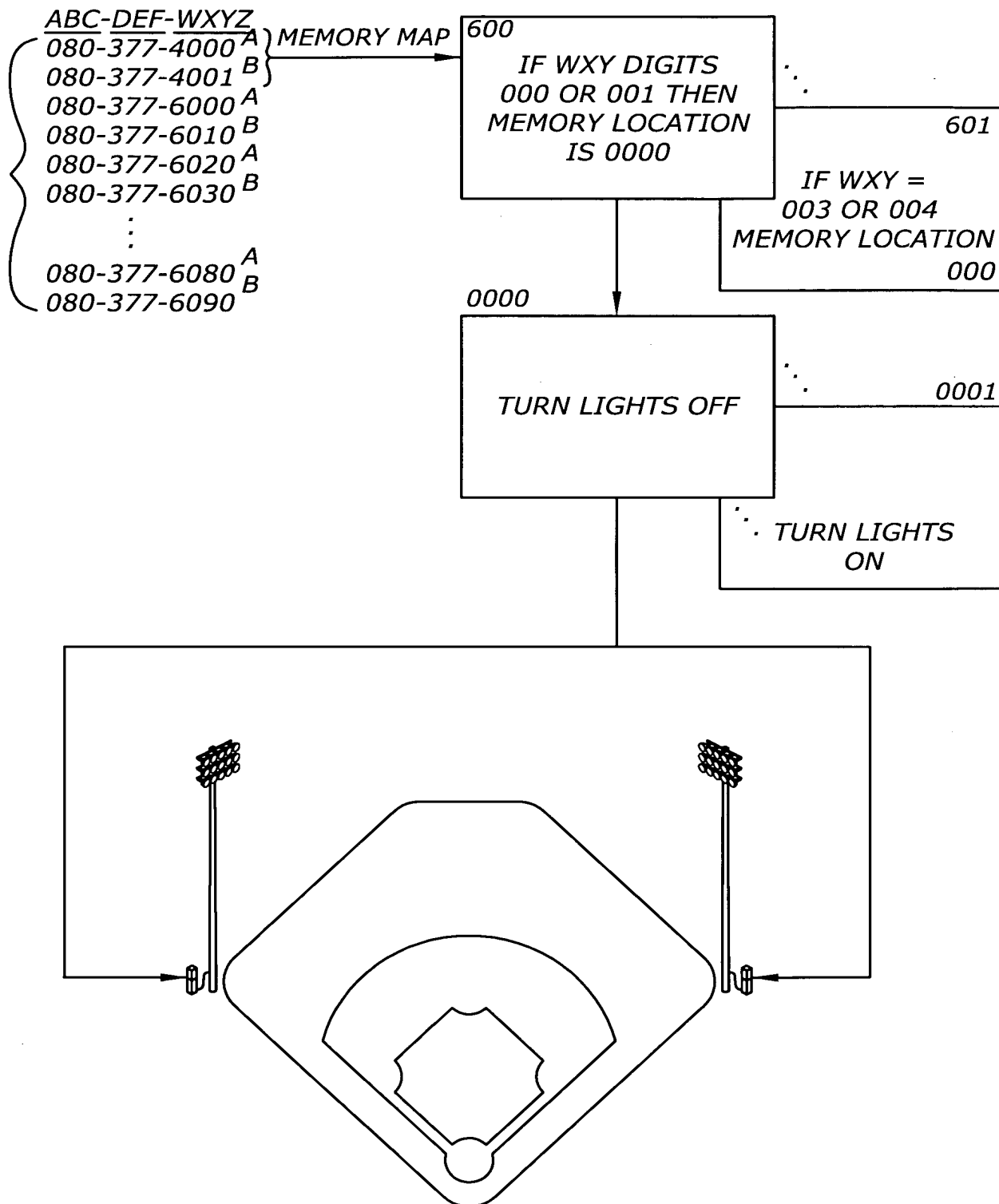


Fig.12

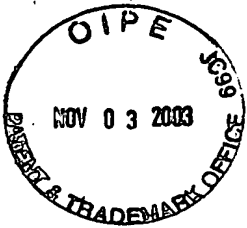


Applicant: **CROOKHAM, et al.**
Attorney Docket No. **P04049US2**
Title: MEANS AND APPARATUS FOR CONTROL
OF REMOTE ELECTRONIC DEVICES
REPLACEMENT SHEETS
Sheet 16 of 26

LOGIN

APPLICATION ID	
PASSWORD	
<div>LOGIN</div>	

Fig.13



MENU

<i>NEW LOGIN</i>
<i>ACTIVATE NEW UNIT</i>
<i>DEACTIVATE UNIT</i>
<i>NOTIFICATION STRATEGIES</i>
<i>ESN DATA DECODING</i>
<i>UNIT CONFIGURATION</i>
<i>VIEW UNIT REGISTRATIONS</i>
<i>VIEW UNIT NOTIFICATIONS</i>
<i>PROGRAM UNIT</i>
<i>OUTPUT CONTROL</i>
<i>1601 SACI DOCS</i>

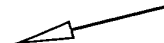


Fig.14



OUTPUT CONTROL

UNIT NUMBER MIN#

IMMEDIATE CONTROL

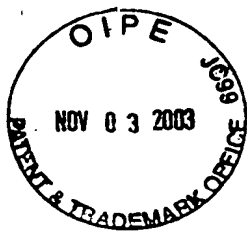
<input checked="" type="checkbox"/>	ON	OUTPUT	1	2	3	4	5	6	7	8
<input type="checkbox"/>	OFF	STATE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SCHEDULE: UNDEFINED

Row#	Mnth	Day	Once	Hr	Min	M	T	U	W	T	H	F	R	S	A	S	U	Op1	Op2	Op3	Op4	Op5	Op6	Op7	Op8
2 ✓	<input type="checkbox"/>	<input type="checkbox"/>	X	11	10	✓	✓	✓	✓	X	✓	✓	✓	✓	✓	✓	✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1 ✓	<input type="checkbox"/>	<input type="checkbox"/>	X	11	16	X	X	X	X	✓	X	X	X	X	X	X	X	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CLICK CELL IMAGE TO TOGGLE SETTING. CLICK "REC#" CELL IMAGE TO DELETE RECORD.

Fig.15



0000
MUSCO CONTROL-LINK SCHEDULER

INSTRUCTIONS: 1: FOLLOW INSTRUCTIONS 1-4 BELOW.
2. WHEN COMPLETED EMAIL THIS FORM TO SCHEDULE @
MUSCO OR FAX TO 800-XXX-YYYY
*IF YOU HAVE ANY QUESTIONS OR PROBLEMS CALL
CONTROL-LINK CENTRAL DIRECTLY AT 877-XXX-YYYY

CUSTOMER NAME: CITY OF BARTLETT

CUSTOMER NUMBER: XYZ

CITY & STATE: BARTLETT TN.

1. FILL IN USERCODE, PASSWORD AND FACILITY.

USERCODE: [REQUIRED]

PASSWORD: [REQUIRED]

FACILITY: [REQUIRED]

2. IF YOU WOULD LIKE YOUR CONFIRMATION SENT DIFFERENTLY THAN
INDICATED BELOW, PLEASE LET US KNOW HOW YOU WOULD LIKE YOUR
CONFIRMATION SENT, I.E., PHONE, EMAIL OR FAX.

SEND BACK CONFIRMATION OF THE SCHEDULE TO:

3: ESTABLISHED WEEKLY SCHEDULES. (THESE OCCUR WEEKLY BY DEFAULT)
BEGINS WEEK OF:

ZONE REQ'D.	MON. ON OFF		TUES. ON OFF		WED. ON OFF		THURS. ON OFF		FRI. ON OFF		SAT. ON OFF		SUN. ON OFF	

4. FILL ANY EXCEPTION SCHEDULING NEEDS WHICH ARE DIFFERENT THAN
YOUR FIXED SCHEDULE.

ZONE	START DATE	START TIME	END DATE	END TIME

NOTE: LACK OF REQUIRED INFORMATION WILL DELAY THE IMPLEMENTATION
OF YOUR SCHEDULE.

COPYRIGHT 1999 MUSCO LIGHTING INC.

Fig.16



MUSCO LIGHT ZONE INFORMATION FORM

CITY:

STATE:

TIME ZONE:

DAYLIGHT SAVINGS TIME Y/N:

FACILITY NAME:

UNIT/REC NUMBER:

RELAY 1 DESCRIPTION:

RELAY 2 DESCRIPTION:

RELAY 3 DESCRIPTION:

RELAY 4 DESCRIPTION:

RELAY 5 DESCRIPTION:

RELAY 6 DESCRIPTION:

CUSTOMER LIGHT ZONES:
DESCRIPTION

RELAYS

SCHEDULE INFORMATION:



Applicant: CROOKHAM, et al.
Attorney Docket No. P04049US2
Title: MEANS AND APPARATUS FOR CONTROL
OF REMOTE ELECTRONIC DEVICES
REPLACEMENT SHEETS
Sheet 21 of 26

MUSCO CONTROL-LINK CUSTOMER INFORMATION FORM

CUSTOMER INFORMATION

NAME:

ADDRESS 1:

ADDRESS 2:

CITY:

STATE:

ZIP:

PHONE:

FAX:

MAIN CONTACT INFORMATION

MAIN CONTACT NAME:

DAY PHONE:

NIGHT PHONE:

CELL PHONE:

PAGER:



MUSCO CONTROL-LINK FACILITY INFORMATION FORM

CUSTOMER NAME:

FACILITY (PARK) NAME:

ADDRESS 1:

ADDRESS 2:

CITY:

STATE:

ZIP:

PHONE:

EMERGENCY CONTACT INFORMATION

EMRGENCY CONTACT NAME:

PHONE:

TIME INFORMATION:

TIME ZONE:

DAY LIGHT SAVINGS TIME Y/N:



Applicant: CROOKHAM, tal.
Attorney Docket No. P04049US2
Title: MEANS AND APPARATUS FOR CONTROL OF
REMOTE ELECTRONIC DEVICES
REPLACEMENT SHEETS
Sheet 23 of 26

MUSCO CONTROL-LINK SCHEDULER INFORMATION FORM

CUSTOMER NAME:

SCHEDULER NAME:

ADDRESS 1:

ADDRESS 2:

CITY:

STATE:

ZIP:

PHONE:

CELL PHONE

FAX:

EMAIL:

PAGER:

USERCODE:

PASSWORD:

FACILITIES (PARKS) THEY ARE ALLOWED TO SCHEDULE:



MUSCO CONTROL-LINK USER INFORMATION FORM

CUSTOMER NAME:

(PARK) USER NAME:

ADDRESS 1:

ADDRESS 2:

CITY:

STATE:

ZIP:

PHONE:

FAX:

EMAIL:

MAIN CONTACT NAME:

FACILITIES (PARKS) THEY ARE ALLOWED TO USE:



GROUP NO. 1

DAY NO. 1

EVENT SLOT NO. 1	<input type="checkbox"/>	<input type="checkbox"/>	} --- 4 BYTES
EVENT SLOT NO. 2	<input type="checkbox"/>	<input type="checkbox"/>	
EVENT SLOT NO. 3	<input type="checkbox"/>	<input type="checkbox"/>	
EVENT SLOT NO. 4	<input type="checkbox"/>	<input type="checkbox"/>	

7 BITS- 00-95 - TIME SLOT NO
96 - SUNRISE
97 - SUNSET
98 - UNPROGRAMMED
99-UNUSED CODE
1 BIT- 0=OFF EVENT
1=ON EVENT

•
•
•

DAY NO. 1

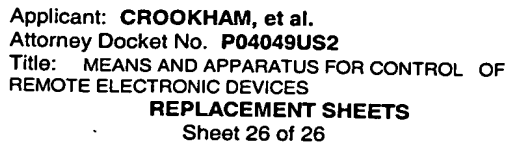
EVENT SLOT NO. 1	<input type="checkbox"/>	<input type="checkbox"/>	} --- 4 BYTES
EVENT SLOT NO. 2	<input type="checkbox"/>	<input type="checkbox"/>	
EVENT SLOT NO. 3	<input type="checkbox"/>	<input type="checkbox"/>	
EVENT SLOT NO. 4	<input type="checkbox"/>	<input type="checkbox"/>	

{GROUP NO. 2

•
•
•

{GROUP NO. 10

Fig.22



1. FOCC ADDRESS PAGE

2. FOCC DATA PAGE NO. 1 (USING PRIMARY COMMANDS MINS)

0	0	0	0			0
	0	0	0	0		0
		0	0	0	0/1	0/1

0	0	0	0			0
	0	0	0	0		0
		0	0	0	0/1	0/1

Diagram illustrating the structure of the first frame of a packet, showing the bit fields and their corresponding labels:

- SEQUENCE NUM.** (3 bits)
- NO SERVICE DELAY** (1 bit)
- SOLICITED/UNSOLICITED** (1 bit)
- STATUS BITS** (3 bits)
- UNUSED** (10 bits)
- CHECKSUM BITS** (12 bits)

CHECKSUM IS THE DECIMAL SUM OF THE LAST THREE (3) DIGITS OF ADDRESS PAGE PLUS THE LAST THREE (3) DIGITS OF COMMAND PAGE PLUS LAST THREE (3) DIGITS OF DATA PAGE REPRESENTED AS AN EIGHT (8) BIT VALUE. THE RESULT IS THEN CONVERTED TO A ONE'S COMPLEMENT AND KEPT AS A SINGLE 8-BIT VALUE.

```
FOCC ADDRESS PAGE:  0 0 6 1 0 1 4 0 2 7
FOCC COMMAND PAGE:  p p p p p p p 5 0 5
FOCC DATA PAGE:    s s s s s s s 1 5 1
```

$\begin{array}{ccccc} 3 & 2 & 1 & 0 & 0 \\ 1 & 3 & 5 & 7 & 0 \end{array}$
 REGISTRATION: 01101100000000000000000000001111101111

Fig.23